WHAT IS CLAIMED IS:

1. A method for producing fine spotted arrays of molecules comprising the following steps:

(a) immobilizing a plurality of affinity anchors onto the array;

(b) preparing a plurality of molecules of interest having affinity for the anchors;

(c) contacting the molecules of interest with the array; and

(d) washing the array to remove unbound molecules of interest.

2. The method of claim 1 wherein the affinity anchors are selected from the group consisting of biotin, streptavidin, a peptide, an antibody and an oligonucleotide.

3. The method of claim 1 wherein the molecules of interest are selected from the group consisting of a peptide, an antibody and an oligonucleotide.

4. The method of claim 1 wherein the affinity anchor molecules are attached to the array by a linker molecule.

5. The method of claim 1 wherein the affinity anchor molecules are attached to the array by a cleavable linker molecule.

6. The method of claim 1 wherein the array comprises at least about 100 electrodes.

7. The method of claim 1 wherein the array comprises at least about 1000 electrodes.

8. An array of molecules produced according to the method of claim 1.

9. An array of molecules comprising a plurality of affinity anchors and a plurality of molecules of interest bound to the affinity anchors.

10. An array according to claim 9 wherein the plurality of affinity anchors are selected from the group consisting of a biotin, streptavidin, a peptide, an antibody and an oligonucleotide.

11. An array according to claim 9 wherein the plurality of molecules of interest are selected from the group consisting of a peptide, an antibody and an oligonucleotide.

12. An array according to claim 9 further comprising at least about 1000 electrodes.